

Title (en)

METHOD FOR PRODUCING ELLIPTICAL, NEEDLE-SHAPED, OR ROD-SHAPED POLYMER PARTICLES

Title (de)

VERFAHREN ZUR HERSTELLUNG ELLIPTISCHER, NADELFÖRMIGER ODER STANGENFÖRMIGER POLYMERTEILCHEN

Title (fr)

PROCÉDÉ DE FABRICATION DE PARTICULES DE POLYMÈRE OVALES, ACICULAIRES ET EN BÂTON

Publication

EP 3296327 A1 20180321 (EN)

Application

EP 16792603 A 20160502

Priority

- JP 2015095723 A 20150508
- JP 2016063545 W 20160502

Abstract (en)

A method for producing elliptical, needle-shaped, or rod-shaped polymer particles satisfying (1)-(3) below is provided which includes a step in which a synthesis solution including water, a mixed solvent of a hydrophilic organic solvent and a hydrophobic organic solvent, a polymeric stabilizer, a polymerization initiator, and an unsaturated monomer is heated, and, at least after the heating has started, the pH of the synthesis solution is adjusted to 5-9 inclusive to perform solution polymerization: (1) the average (L AV) length (L) in a two-dimensional projection diagram obtained by irradiating the particles with light from a direction orthogonal to the longitudinal direction is 0.1-80 µm; (2) the average (D AV) breadth (D) in the two-dimensional projection diagram obtained by irradiating the particles with light from the direction orthogonal to the longitudinal direction is 0.05-40 µm; and (3) the average (P AV) aspect ratio (L/D) calculated from the length (L) and the breadth (D) is 1.5-30.

IPC 8 full level

C08F 2/06 (2006.01); **A61K 8/02** (2006.01); **A61K 8/81** (2006.01); **A61Q 1/12** (2006.01); **C09D 11/10** (2014.01); **C09D 125/04** (2006.01); **C09D 129/00** (2006.01); **C09D 133/04** (2006.01); **C09D 157/00** (2006.01); **C09J 125/04** (2006.01); **C09J 129/00** (2006.01); **C09J 133/04** (2006.01); **C09J 157/00** (2006.01)

CPC (source: EP US)

A61K 8/02 (2013.01 - US); **A61K 8/0245** (2013.01 - EP US); **A61K 8/81** (2013.01 - US); **A61K 8/8152** (2013.01 - EP US); **A61K 8/8158** (2013.01 - EP US); **A61Q 1/12** (2013.01 - EP US); **C08F 2/06** (2013.01 - EP US); **C08F 112/08** (2013.01 - US); **C08F 212/08** (2013.01 - EP US); **C08F 265/06** (2013.01 - EP US); **C09D 11/10** (2013.01 - EP US); **C09D 125/04** (2013.01 - US); **C09D 129/00** (2013.01 - US); **C09D 133/04** (2013.01 - EP US); **C09D 157/00** (2013.01 - US); **C09J 125/04** (2013.01 - US); **C09J 129/00** (2013.01 - US); **C09J 133/04** (2013.01 - EP US); **C08F 12/22** (2013.01 - US); **C08F 12/30** (2013.01 - US); **C08F 212/22** (2020.02 - EP US); **C08F 212/30** (2020.02 - EP US); **C08F 2500/24** (2013.01 - EP US)

C-Set (source: EP US)

EP

1. **C08F 120/14 + C08F 2/20**
2. **C08F 265/06 + C08F 120/14**
3. **C08F 265/06 + C08F 2/20**
4. **C08F 220/14 + C08F 222/102**
5. **C08F 212/08 + C08F 220/281**
6. **C08F 212/08 + C08F 212/14**

US

1. **C08F 120/14 + C08F 2/20**
2. **C08F 220/14 + C08F 2/20**
3. **C08F 220/14 + C08F 222/102**
4. **C08F 212/08 + C08F 220/14**
5. **C08F 212/08 + C08F 2/20**
6. **C08F 212/08 + C08F 220/281**
7. **C08F 265/06 + C08F 120/14**
8. **C08F 265/06 + C08F 2/20**

Cited by

EP3586822A4

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3296327 A1 20180321; **EP 3296327 A4 20181219**; **EP 3296327 B1 20240515**; CN 107614542 A 20180119; CN 107614542 B 20200303; JP 6763375 B2 20200930; JP WO2016181878 A1 20180301; US 10729623 B2 20200804; US 2018104160 A1 20180419; WO 2016181878 A1 20161117

DOCDB simple family (application)

EP 16792603 A 20160502; CN 201680026819 A 20160502; JP 2016063545 W 20160502; JP 2017517897 A 20160502; US 201615572196 A 20160502